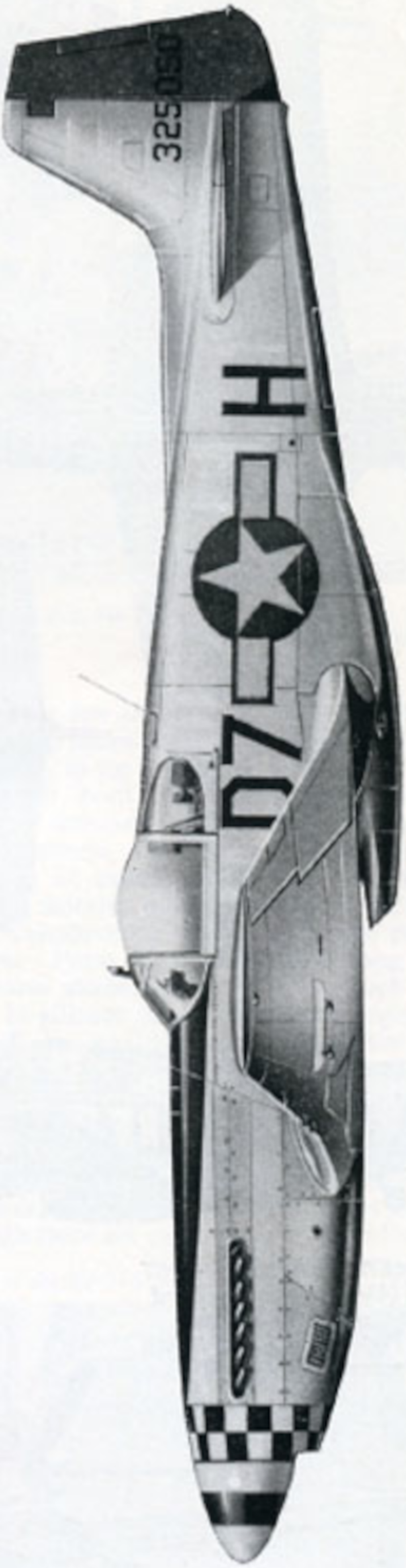
PROFILE
PUBLICATIONS

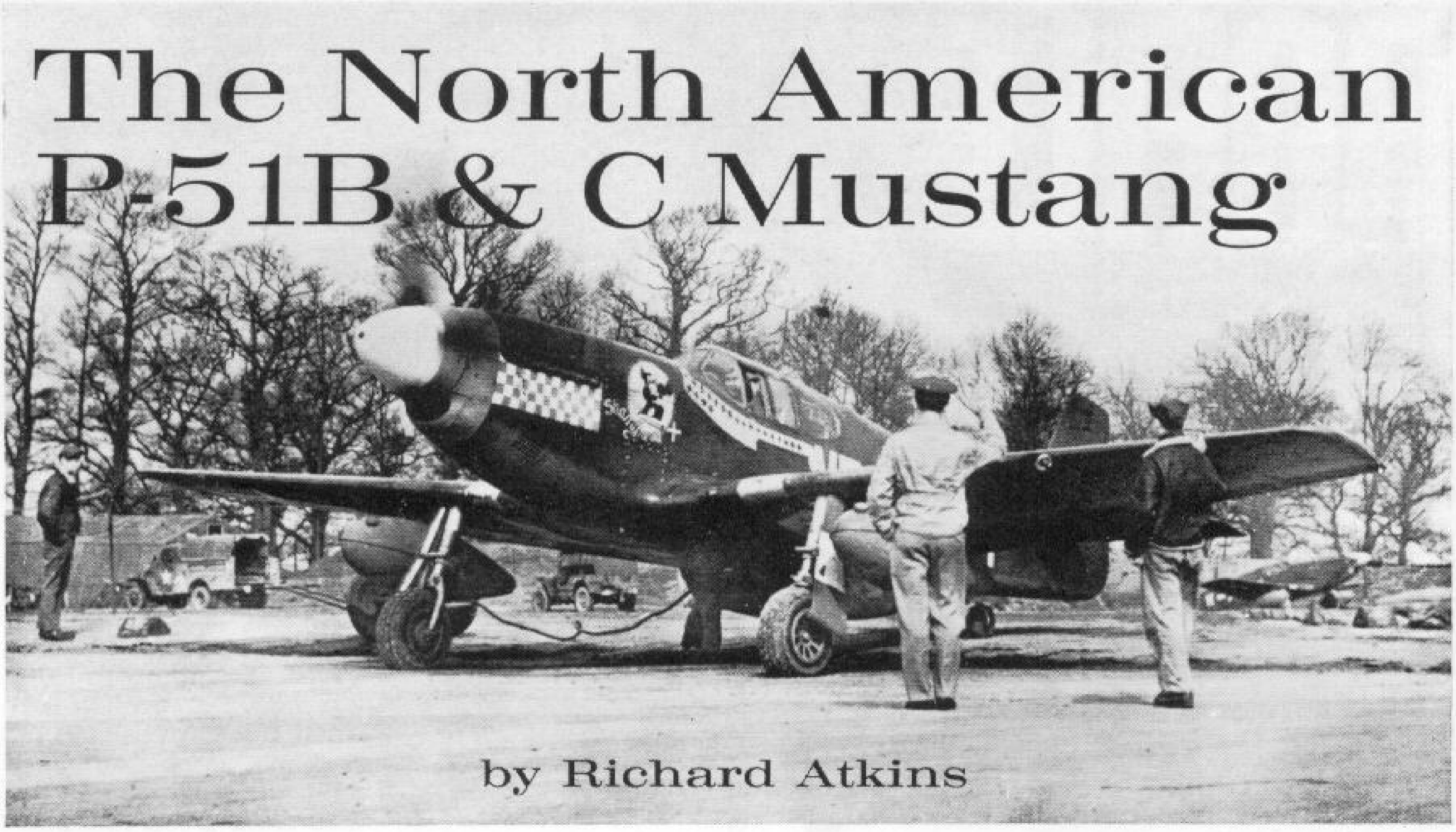
The North American P-51B & C Mustang

NUMBER 100
TWO SHILLINGS



The North American P-51B & C Mustang

by Richard Atkins



P-51B-5-NA, 43-6913, VF-T of the 335th Fighter Squadron, 4th Fighter Group, U.S. 8th Air Force. The legendary "Shangri La" flown by Captain Don Gentile. (Photo: Imp. War Mus.)

"MUSTANG, the small, hardy, half wild horse of America." So defines the Winston Dictionary. No more fitting name could have been chosen for this sturdy little steed which was destined to carve a place in aviation history beside such great fighters as the SPAD, S.E.5. and Spitfire. No less impressive is the list of great fighter pilots who rode the Mustang to glory in bitter combat in every theatre of the War; Gentile, Godfrey, Beerbower, and a host of other famous pilots as well as the tens of thousands of unheralded heroes who were privileged to fly her.

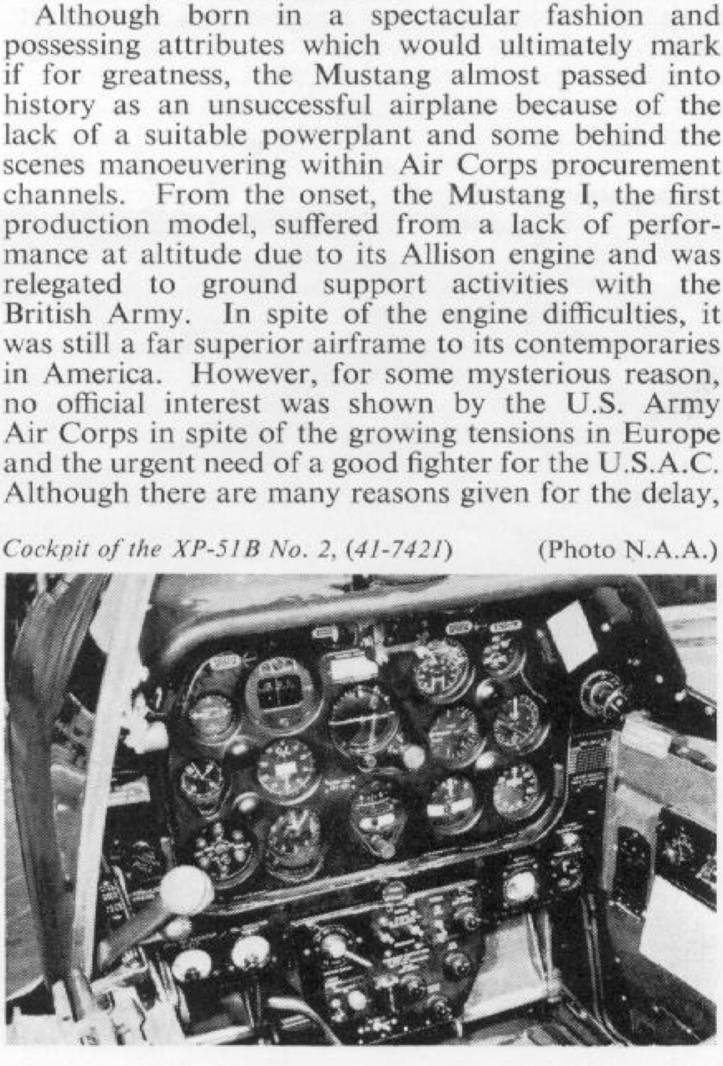
No fighter plane in history, neither before or since, has matched the versatility of the Mustang. Designed as short range fighter, the P-51 ultimately served with distinction in the rôle of Long Range Escort Fighter, Fighter-Bomber, Photo Reconnaissance, Close Support, and Dive Bomber in not one, but two, major wars and dozens of minor ones (if one can classify any armed conflict as minor) and went on to become a sleek and sought-after executive transport machine, Cross Country & Pylon Racer, and movie star.

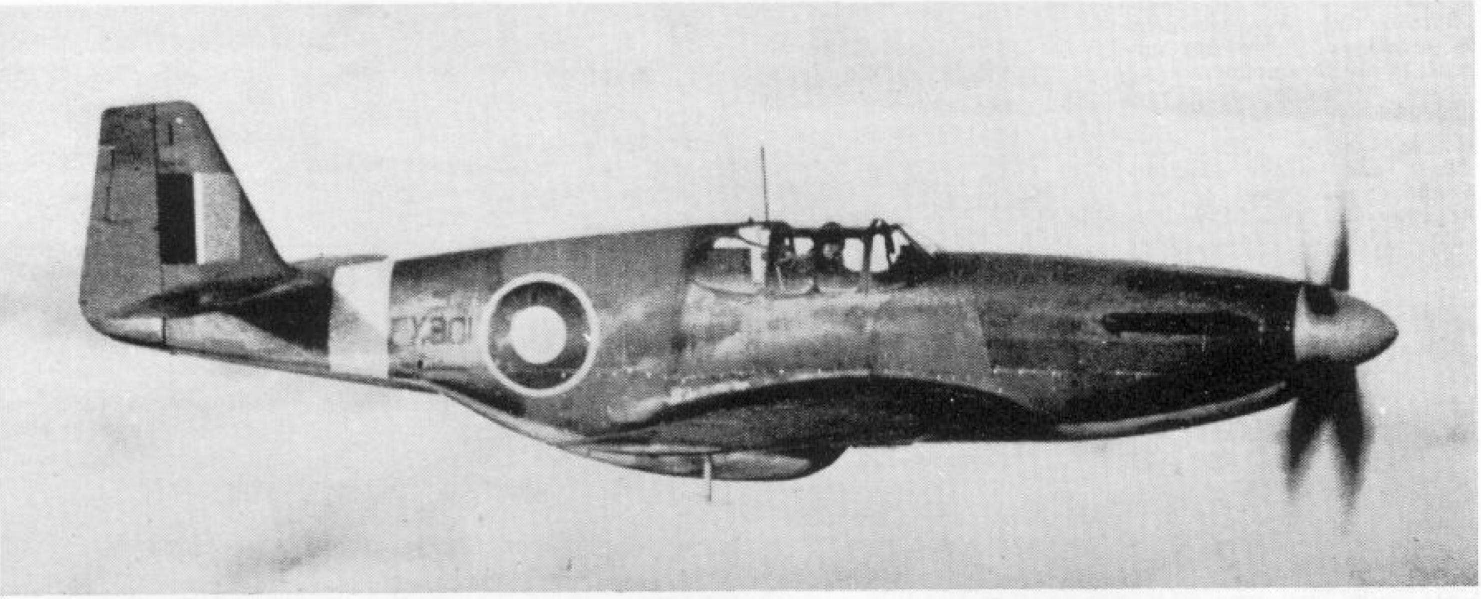
Other fighter types have equalled the Mustang in one or more of the varied combat rôles but none have ever equalled it in all of it's assigned missions. Such is the versatility and rugged dependability of the Mustang that it is as difficult to imagine the passing of the Mustang from the scene as it would be to visualize aviation without the DC-3.

It is indeed sad to reflect that the P-51B's and C's are practically extinct. While the P-51D is still quite plentiful, the B and C are only to be found in museums in extremely small quantity. Outside of those examples in the Air Force Museum, the National Air Museum (Blair's Excalibur III), the Movieland Museum of the Air (Mantz's Bendix winner) and Ed Maloney's Air Museum in Ontario, California, none are known to exist. In all probability, some few examples lie rotting in old hangers and in scrap heaps in the U.S. and in Europe, but are known only to the local folk.

Although born in a spectacular fashion and possessing attributes which would ultimately mark if for greatness, the Mustang almost passed into history as an unsuccessful airplane because of the lack of a suitable powerplant and some behind the scenes manoeuvering within Air Corps procurement channels. From the onset, the Mustang I, the first production model, suffered from a lack of performance at altitude due to its Allison engine and was relegated to ground support activities with the British Army. In spite of the engine difficulties, it was still a far superior airframe to its contemporaries in America. However, for some mysterious reason, no official interest was shown by the U.S. Army Air Corps in spite of the growing tensions in Europe and the urgent need of a good fighter for the U.S.A.C. Although there are many reasons given for the delay,

Cockpit of the XP-51B No. 2, (41-7421) (Photo N.A.A.)





Royal Air Force Mustang II, serial no. FX801. (Photo: Imp. War Mus.)

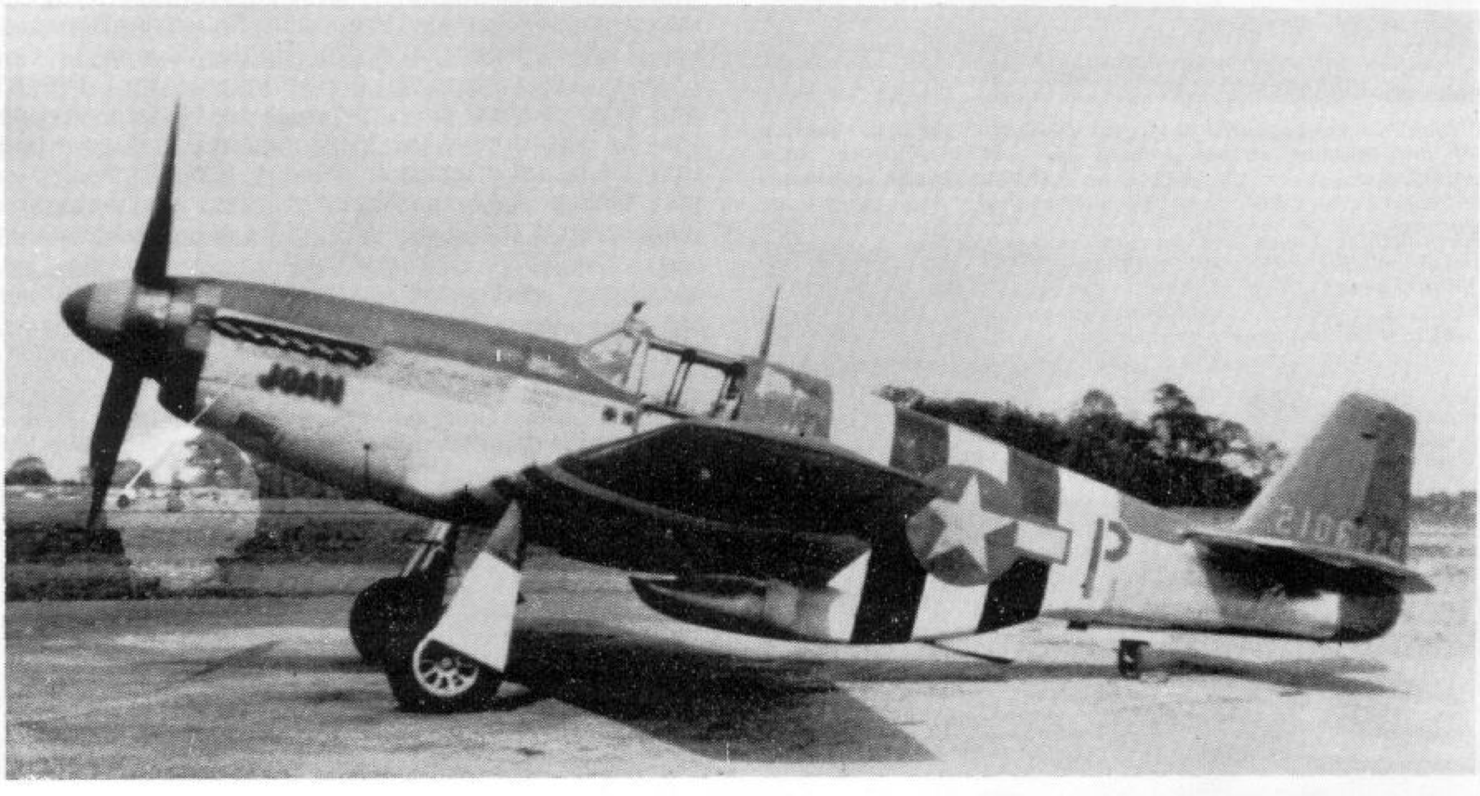
a few insiders are familiar with the real story. It is to the eternal credit of the great Dutch Kindelberger, President of North American Aviation, that the demand for gratuities in return for a production award was refused in no uncertain terms. Ultimately even those who sought to block the procurement could not sustain their position because of the obvious qualities of the airplane. Justice triumphed eventually, and the P-51A was ordered in quantity.

In all some 670 Mustang I and II's were procured by the R.A.F. while 358 model P-51 and P-51A's were delivered to the U.S.A.A.F. These machines performed satisfactorily in spite of the powerplant deficiencies but they could be classified only fair at best. It required the marriage of the Rolls Royce Merlin engine to the Mustang airframe to create the beginnings of a really great combat airplane.

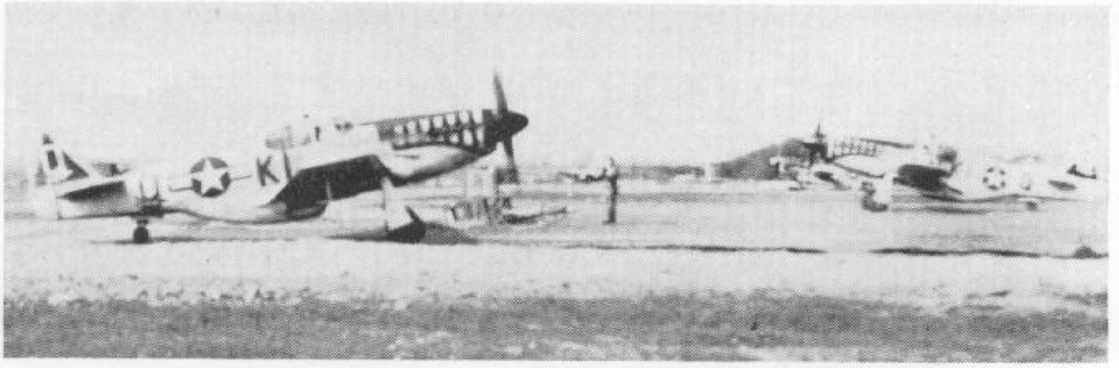
Life for the P-51B began in late 1942 in the form of two prototype XP-51B airplanes identified as A.A.F. serial numbers *41-37352* and *41-37421*, equipped with the V-1650-3 engine. The major differences in appearance between the A and B created by the Merlin engine are evident from the firewall forward and in the coolant radiator structure. The carburettor air intake was moved from the top to the bottom of the nose and all nose guns were removed. The coolant radiators were enlarged requiring a deepening of the fuselage in the area of the radiators.

The increase in performance was dramatic. The 390 m.p.h. speed of the P-51A was raised to 441 m.p.h. by the P-51B. Now the A.A.F. had a machine that could compete on even terms with the late model Bf109's and the Fw190's. Production began in late 1942 at the Inglewood, California facility of North American and proceeded through 1943 with a total of 1,988 produced in 7 blocks. The California-built

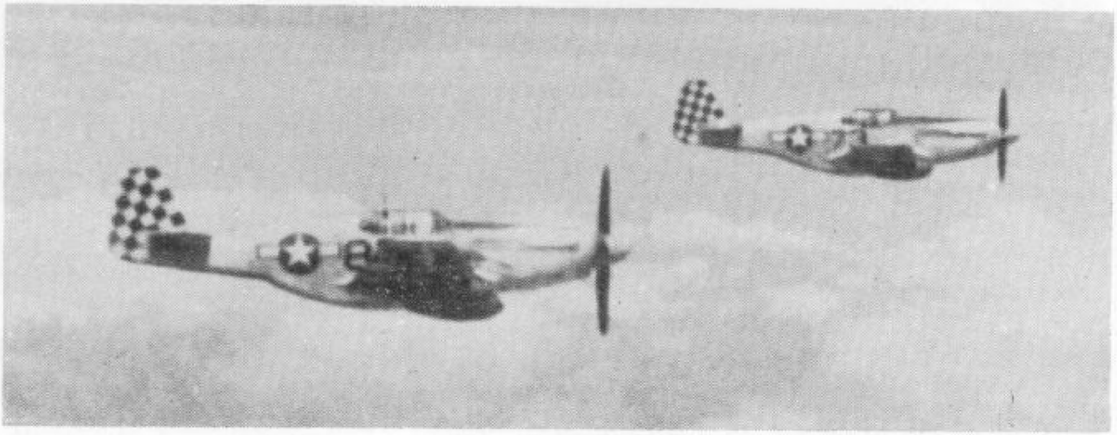
This P-51B-15NA, "Joan" of the 362nd Ftr. Sqdn., 357th Ftr. Grp., is seen in its June 1944 warpaint with full invasion markings. (Photo: Merle Olmstead)



P-51B's of the 55th Ftr. Sqdn., 20th Ftr. Grp. Note similarity in markings of the two aircraft in the foreground.
(Photo: Royal Frey)



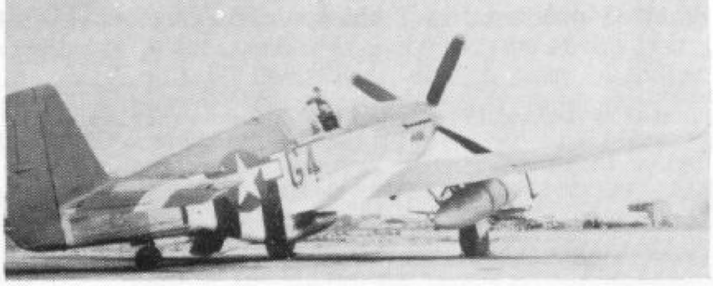
Below, right,
Black and yellow chequers brighten the tails of two Mustangs of the 325th Ftr. Grp., 15th Air Force, over Italy.
(Photo: A. G. Simmons)



Mustangs were known as the P-51B-NA. Not to be outdone by their California cousins, the Dallas, Texas facility of North American (now the LTV Aerospace Corp. plant building XC-142A and A7A aircraft) was busy turning out some 1,750 airplanes identified as the P-51C-NT. Production began in 1943 and was completed in 1944.

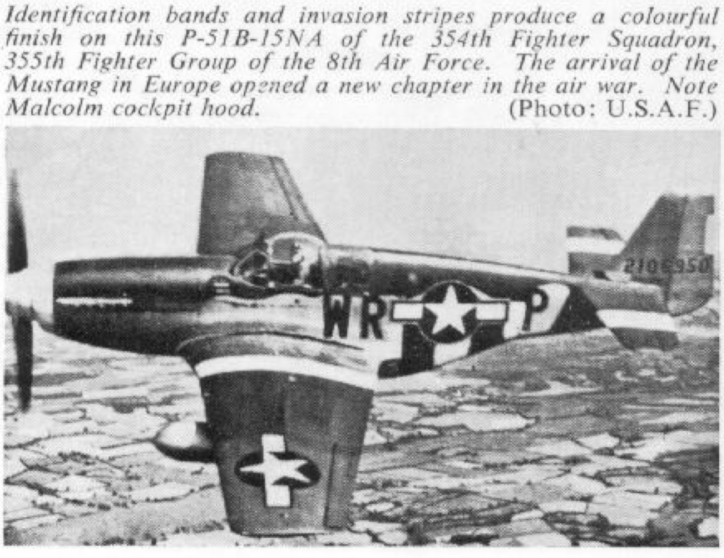
COMBAT

The P-51B/C was a combat airplane from its very inception in 1942, winning it's spurs in a single conflict; World War II. It was never destined to be a peacetime machine nor to participate in a variety of wars. From the day it entered the combat zone until it was eventually replaced in favour of the P-51D, it was involved in every major air battle on three fronts.



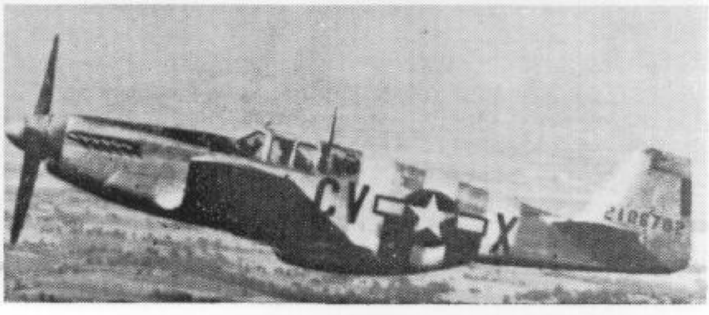
"Joan" as she appeared in August 1944, with the upper portion of her invasion stripes painted out and a Malcolm hood installed. (Photo: Merle Olmstead)

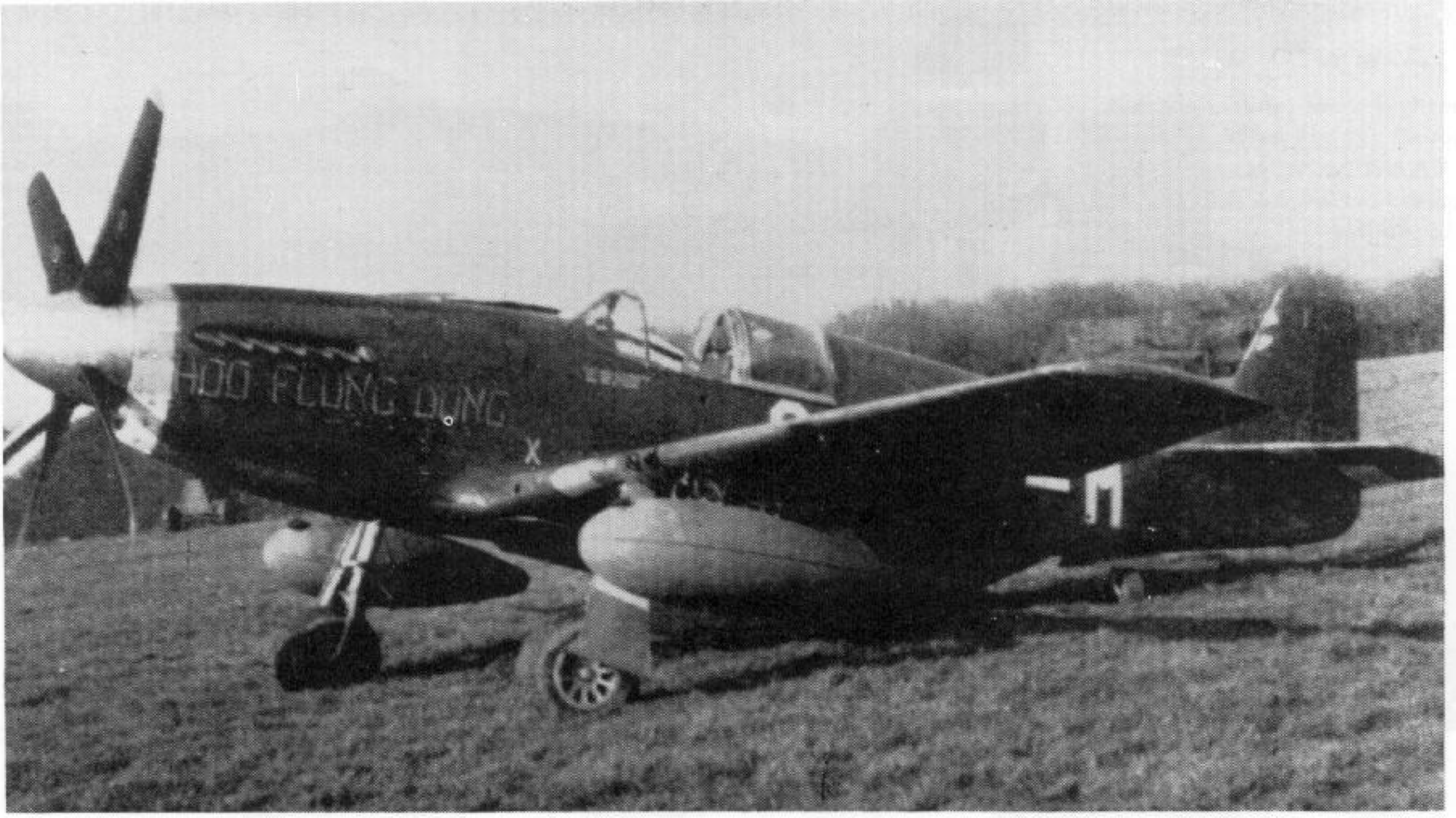
Identification bands and invasion stripes produce a colourful finish on this P-51B-15NA of the 354th Fighter Squadron, 355th Fighter Group of the 8th Air Force. The arrival of the Mustang in Europe opened a new chapter in the air war. Note Malcolm cockpit hood. (Photo: U.S.A.F.)



The P-51 was introduced to combat on 1st December 1943 when P-51B's of the 354th Fighter Group of the 9th Air Force executed a fighter sweep over North-Western France. On 5th December these same Mustangs flew the first P-51 escort mission to Amiens, France. Again on 13th December P-51B's of the 354th, in company with P-38's of the 55th Group, escorted a flight of B-17's some 500 miles to the target at Kiel, Germany and back again to England. This was the longest fighter mission of the war up to that point and signalled the beginning of the end for the *Luftwaffe* air superiority. On 22nd February 1943, the second P-51 Group was rendered operational. This was the 363rd Fighter Group of the 9th U.S.A.A.F. On 11th February 1944 the 8th U.S.A.A.F. became a Mustang outfit when the 357th Fighter Group made its first mission on a fighter sweep over Rouen, France. Shortly afterwards (on 27th February) the 4th Fighter Group of Col. Don Blakeslee received its complement of P-51B's and C's. Acting on a promise to General Kepner that he would have the Mustangs in combat no later than 24 hours after their delivery, Col. Blakeslee led his Group into combat in the newly-acquired machines on the 28th. His pilots averaged less than

This flying study of P-51B-10NA (42-106702) of the 8th A.F.'s 368th Ftr. Sqdn., 359th Ftr. Grp. was taken from the navigator's compartment of a B-17 Flying Fortress by Lt. S. G. Prather, now a project engineer on the L.T.V.A7A team. The Mustang escorts ended the lonely crucifixion of 8th A.F. bomber crews over targets deep in enemy territory. (Photo: S. G. Prather)





P-51B-5NA (43-6438) "City of Paris" flown by Maj. R. C. McWherter, commanding officer of the 382nd Ftr. Sqdn., 363rd Ftr. Grp., 9th Air Force. The starboard nose legend alludes to the pilot's home town of Paris, Texas; and the cryptic phrase Hoo Flung Dung *worked in elephant tusks on the port side is a memento of service in Java and Sumatra.* (Photos: R. C. McWherter)

1 hour's flying time in the Mustang when they became airborne for that first mission. Not a recommended procedure for leading a long life; but the pedigree of the Mustang made itself very evident and the mission was a success.

The bulk of the P-51's in combat status were assigned to the 8th and 9th Air Forces in England with a lesser number doing combat chores with the 12th and 15th U.S.A.A.F's in Italy and surrounding areas. The P-51B/C was the prime variant from December 1943 until March 1944 at which time the P-51D began to appear in quantity with the 8th A.F. However, the P-51B/C remained predominant until the middle of 1944 and remained in combat till the end of the conflict. Of the 1,357,000 combat hours flown by the P-51's in all theatres of war, some 1,120,000 were accounted for in the E.T.O. and approximately 400,000 of that quantity by the ever present B's and C's.

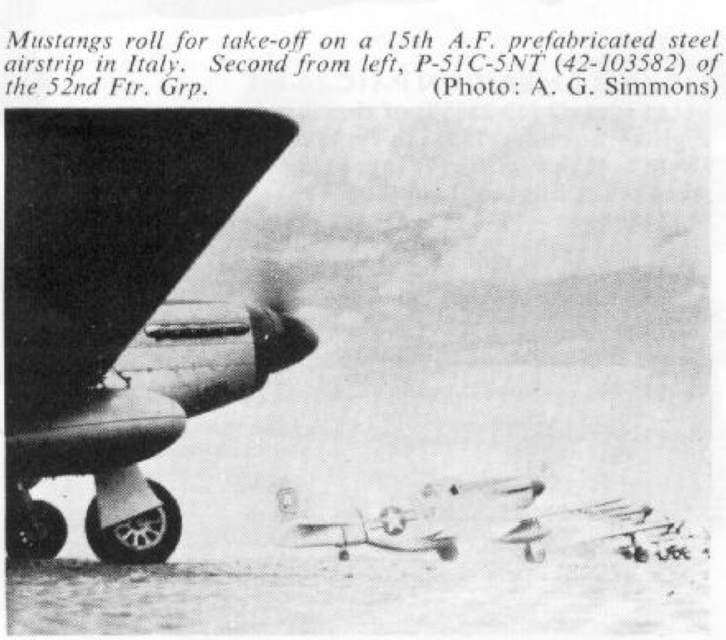
Until the B's and C's delivery was initiated in December 1943, the Mustang complement in Europe was quite low, averaging about 350 airplanes. From that date on, the numbers rose steadily, increasing at a rate of about 100 airplanes per month, until the peak of 2,500 was reached in May 1945. Of this total number, about 1,000 were of the B and C designation.

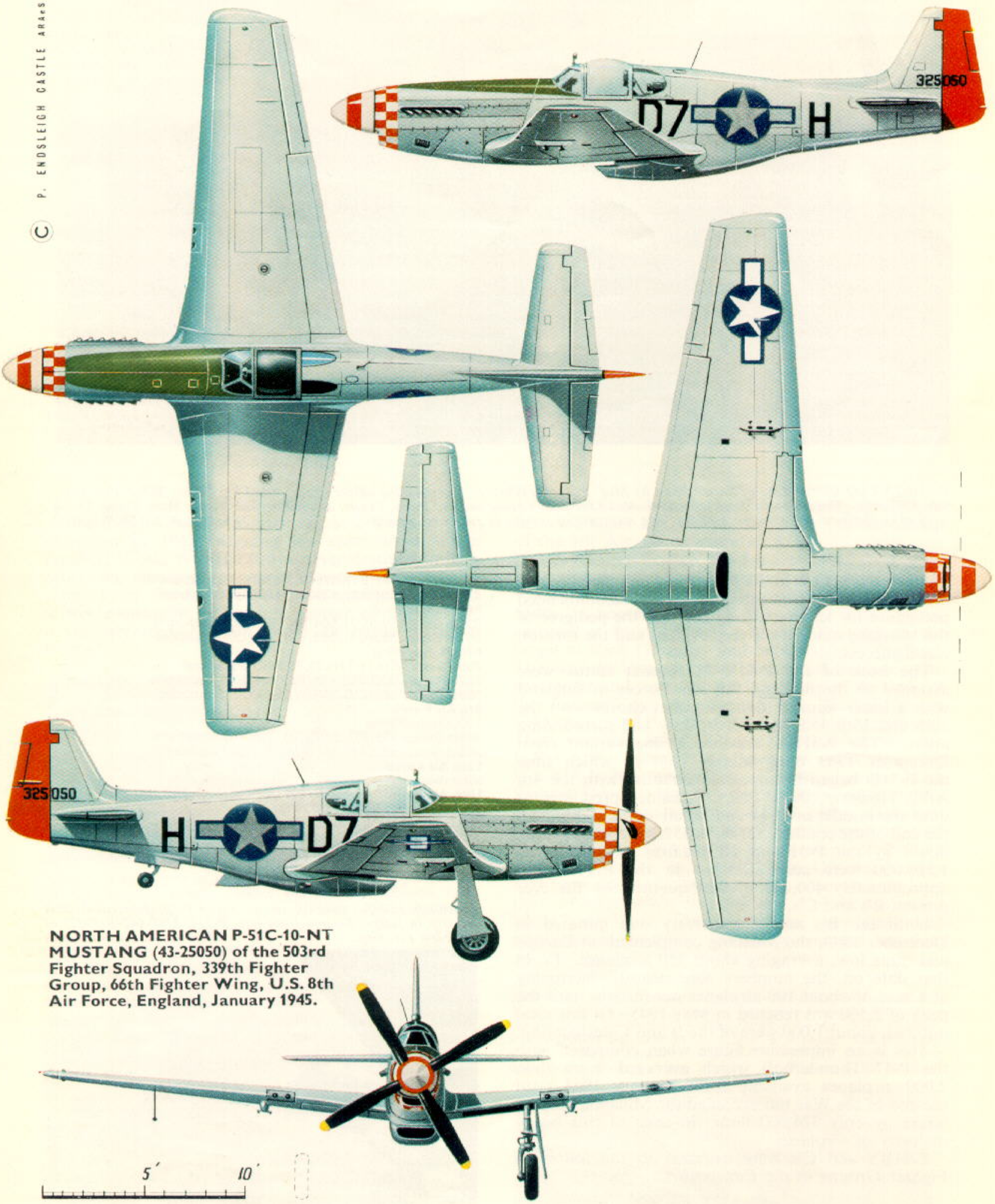
This is an impressive figure when compared with the P-47 Thunderbolt which averaged more than 2,000 airplanes available from January 1944 until the end of the War but exceeded the Mustang combat hours by only 324,000 hours in spite of this heavy majority of airplanes.

P-51B's and C's were assigned to the following Fighter Groups in the European theatre:

8th Air Force
65th Fighter Wing
4th Group-334(QP), 335(WD), 336(VF) Squadrons
335th Group-354(WR), 357(OS), 358(YF) Squadrons
361st Group-374(B7), 375(E2), 376(E9) Squadrons
479th Group-434(L2), 435(J2), 436(B9) Squadrons
66th Fighter Wing
339th Group-503(D7), 504(6N), 505(5Q) Squadrons
357th Group-362(G4), 363(B6), 363(C5) Squadrons
67th Fighter Wing
20th Group-55(K1), 77(LC), 79(MC) Squadrons
352nd Group-328(PE), 486(PZ), 487(HO) Squadrons
359th Group-368(CV), 369(IV), 370(CS) Squadrons
9th Air Force
100th Fighter Wing
354th Group-353(FT), 355(GQ), 356(AJ) Squadrons
363rd Group-380(A9), 381(5M), 382(C3) Squadrons
12th Air Force
52nd Group
15th Air Force
325th Group-317, 318 and 319 Squadrons
31st Group-307(MZ), 308(WZ), 309(HL) Squadrons
332nd Group-99, 100, 301 and 302 Squadrons

Mustangs roll for take-off on a 15th A.F. prefabricated steel airstrip in Italy. Second from left, P-51C-5NT (42-103582) of the 52nd Ftr. Grp. (Photo: A. G. Simmons)

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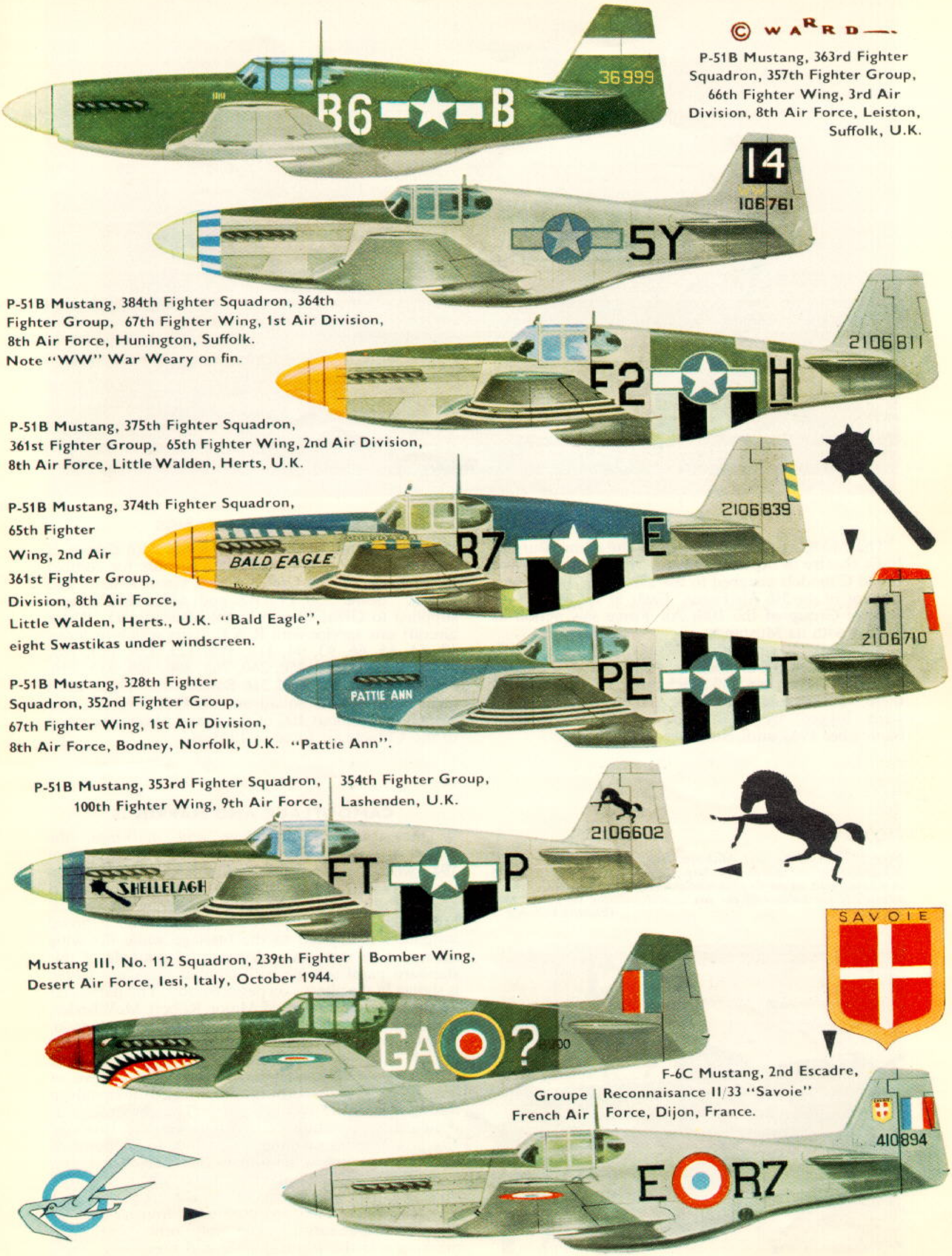
NORTH AMERICAN P-51C-10-NT MUSTANG (43-25050) of the 503rd Fighter Squadron, 339th Fighter Group, 66th Fighter Wing, U.S. 8th Air Force, England, January 1945.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P-51B Mustang, 363rd Fighter Squadron, 357th Fighter Group, 66th Fighter Wing, 3rd Air Division, 8th Air Force, Leiston, Suffolk, U.K.

P-51B Mustang, 384th Fighter Squadron, 364th Fighter Group, 67th Fighter Wing, 1st Air Division, 8th Air Force, Hunington, Suffolk. Note "WW" War Weary on fin.

P-51B Mustang, 375th Fighter Squadron, 361st Fighter Group, 65th Fighter Wing, 2nd Air Division, 8th Air Force, Little Walden, Herts, U.K.

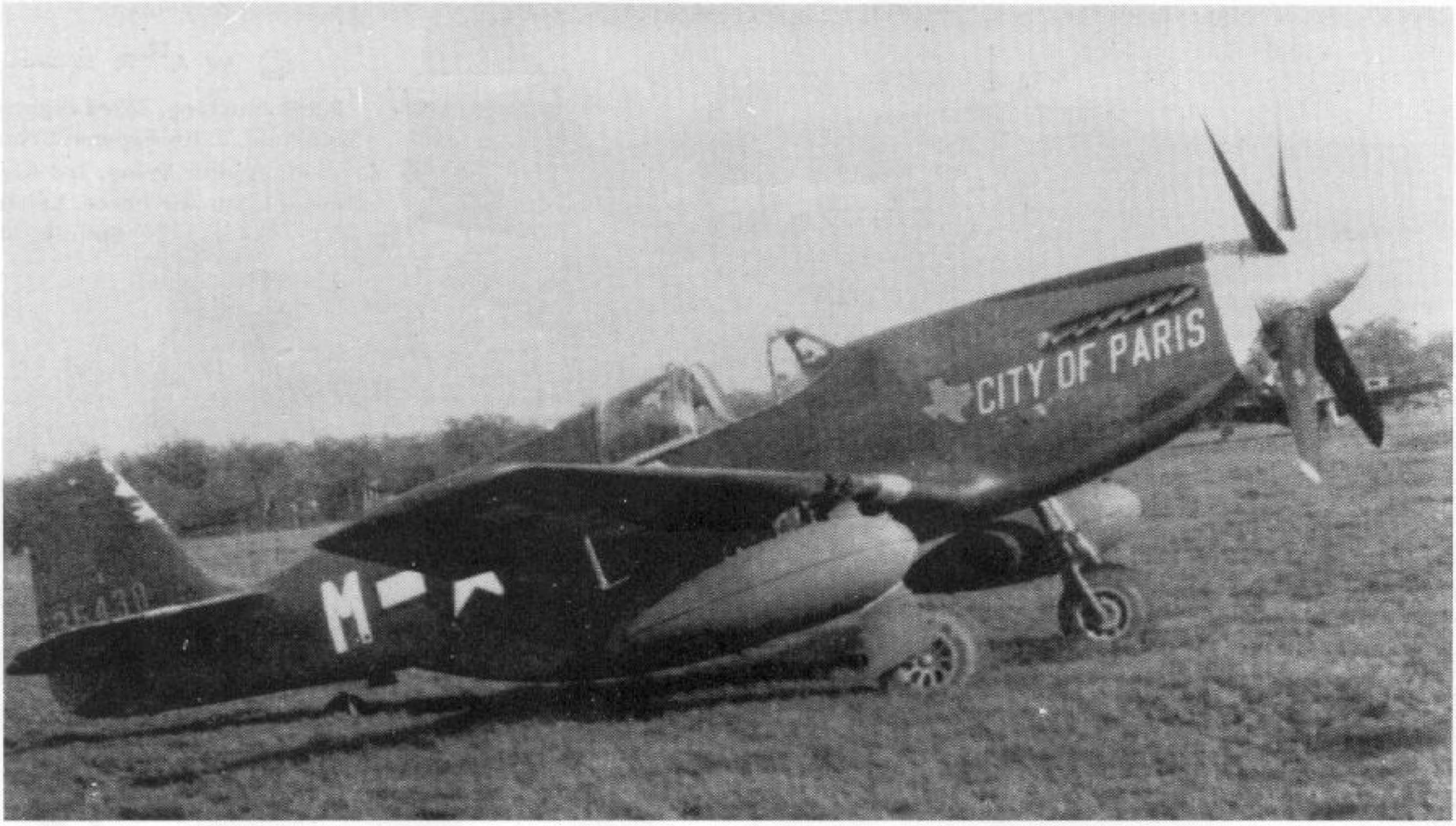
P-51B Mustang, 374th Fighter Squadron,
65th Fighter
Wing, 2nd Air
361st Fighter Group,
Division, 8th Air Force,
Little Walden, Herts., U.K. "Bald Eagle",
eight Swastikas under windscreen.

P-51B Mustang, 328th Fighter Squadron, 352nd Fighter Group, 67th Fighter Wing, 1st Air Division, 8th Air Force, Bodney, Norfolk, U.K. "Pattie Ann".

P-51B Mustang, 353rd Fighter Squadron, 100th Fighter Wing, 9th Air Force, 354th Fighter Group, Lashenden, U.K.

Mustang III, No. 112 Squadron, 239th Fighter Bomber Wing, Desert Air Force, Iesi, Italy, October 1944.

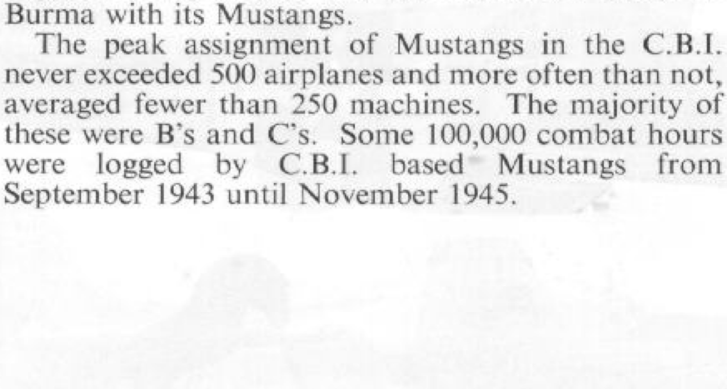
F-6C Mustang, 2nd Escadre, Groupe Reconnaisance II/33 "Savoie" French Air Force, Dijon, France.



The Mustang entered service in the China-Burma-India theatre in September 1943. These aircraft were B and C models assigned to the 23rd and 51st Fighter Groups of the 5th Air Force. Early in 1944 the 311th Fighter Group of the 10th Air Force saw action in Burma with its Mustangs.

The peak assignment of Mustangs in the C.B.I. never exceeded 500 airplanes and more often than not, averaged fewer than 250 machines. The majority of these were B's and C's. Some 100,000 combat hours were logged by C.B.I. based Mustangs from September 1943 until November 1945.

Note the dorsal fin and Malcolm hood of this P-51C-10-NT (43-25050) of the 339th Ftr. Grp., 503rd Sqdn., photographed in a revetment on an English airfield in January of 1945. (This aircraft is the subject of the five-aspect painting on p.2 of this Profile). (Photo: U.S.A.F.)

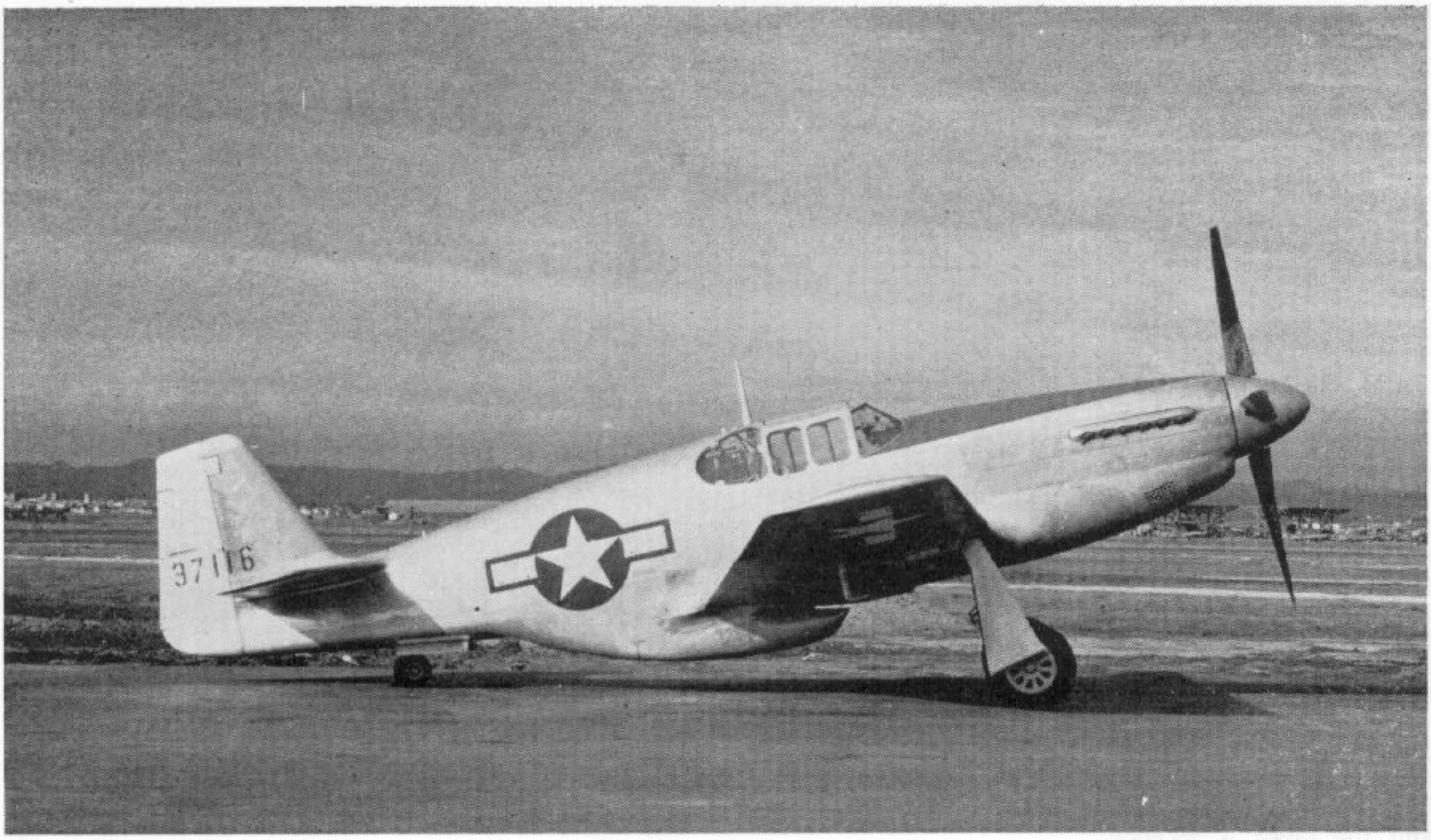


FOREIGN MUSTANGS

While the D model was to see service with dozens of countries the P-51B/C was destined only for combat in the service of the United States, Great Britain, and China. Some 250 P-51B's and 637 P-51C's were supplied to Great Britain as the Mustang III. These aircraft saw service with R.A.F. units which included 19, 64, 65, 66, 93, 94, 112, 118, 122, 126, 129, 165, 234, 237, 241, 249, 250, 260, 268, 306, 309, 315, 316, 345, 430, 441, 442 and 516 Squadrons. These units included 4 Polish squadrons, 1 Free French, and 3 R.C.A.F. About 100 of the B and C were supplied to the Chinese air force in 1943-44.

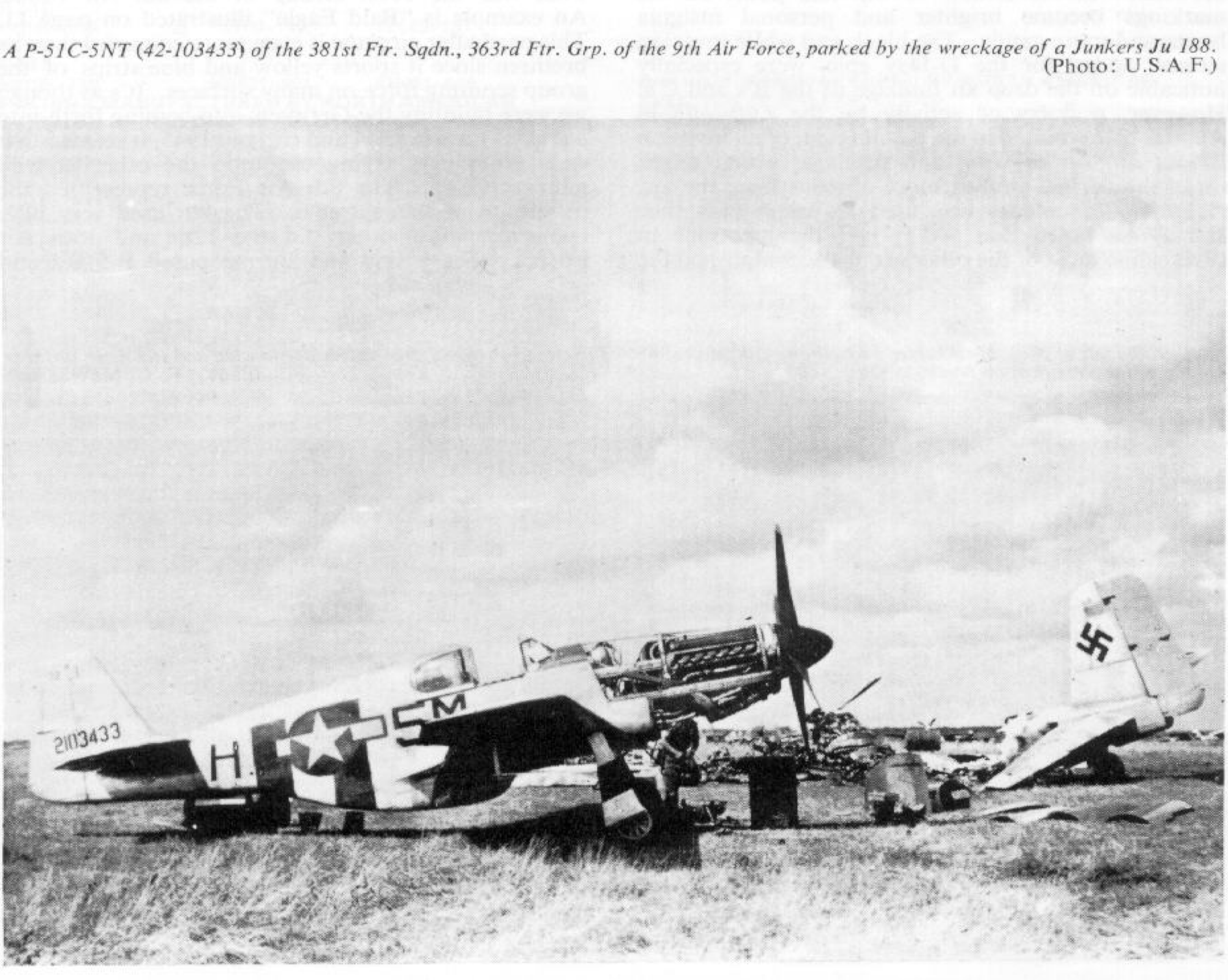
CAMOUFLAGE AND MARKINGS

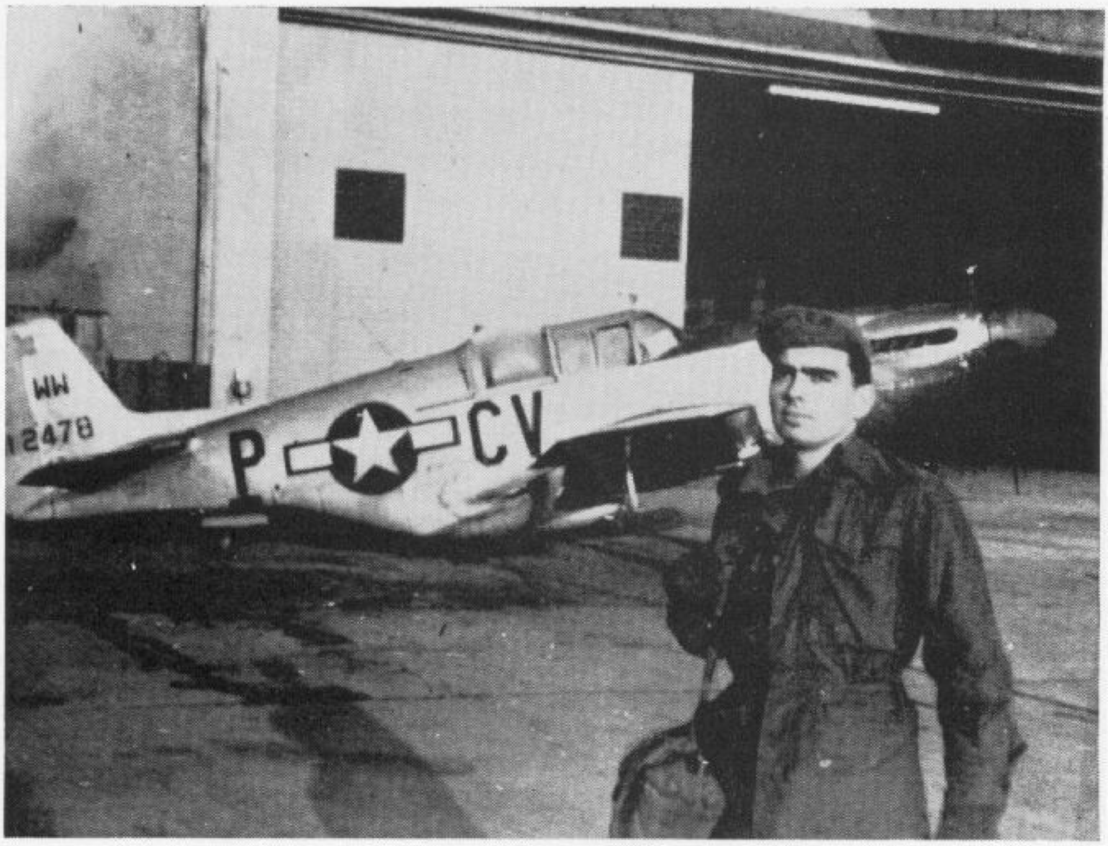
In the area of camouflage and markings, the U.S.A.A.F. P-51B/C began life in the typical motif of 1943 which included Dark Olive Drab shade 41 on the upper surfaces. This drab finish was improved only slightly by the radio call numbers on the vertical tail in yellow shade 48. A 35 inch diameter national insignia was applied to the fuselage while the wing sported a 39 inch star. A beautiful example of this standard paint scheme with combat markings added is shown in the photos on pages 6 and 7. This particular machine was the steed of Major Robert McWherter, Commanding Officer of the 382nd Fighter Squadron, 363rd Group, 9th Air Force (later a pilot of the famed XC-99, Aerodynamics Professor at the University of Texas, and currently an executive of the LTV Aerospace Corporation), who led the squadron through its entire combat tour. The camouflage is standard with white code letters on the fuselage. The nose legends on either side allude to his home of Paris (Texas) and to his tour in the Pacific (Java and Sumatra in the dark days of 1942) which saw him down 3 Japanese airplanes in combat. An additional 3 victories were recorded during his tour as C.O. of the 382nd Squadron. The only other distinctive marking was the white spinner and nose.



A factory-fresh P-51B-10NA (43-7116); note cockpit details. (Photo: N.A.A.)

A P-51C-5NT (42-103433) of the 381st Ftr. Sqdn., 363rd Ftr. Grp. of the 9th Air Force, parked by the wreckage of a Junkers Ju 188. (Photo: U.S.A.F.)

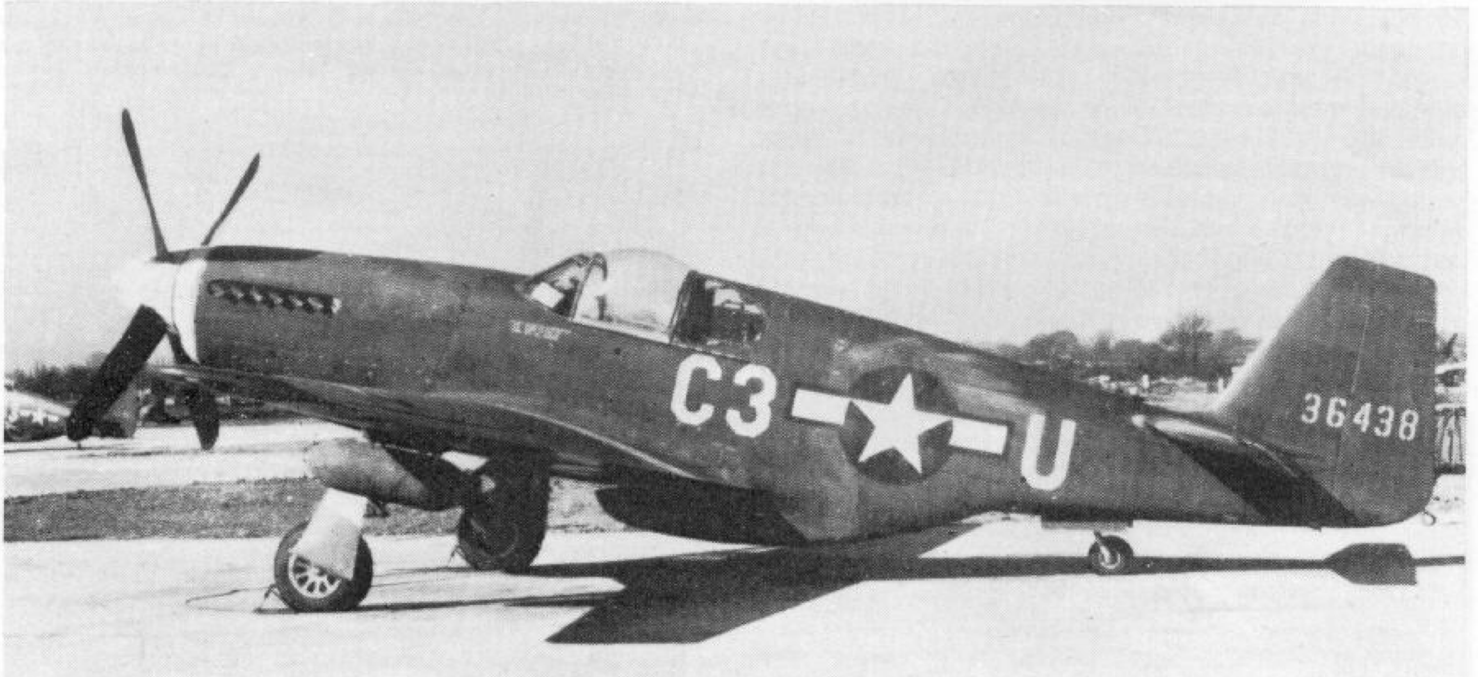


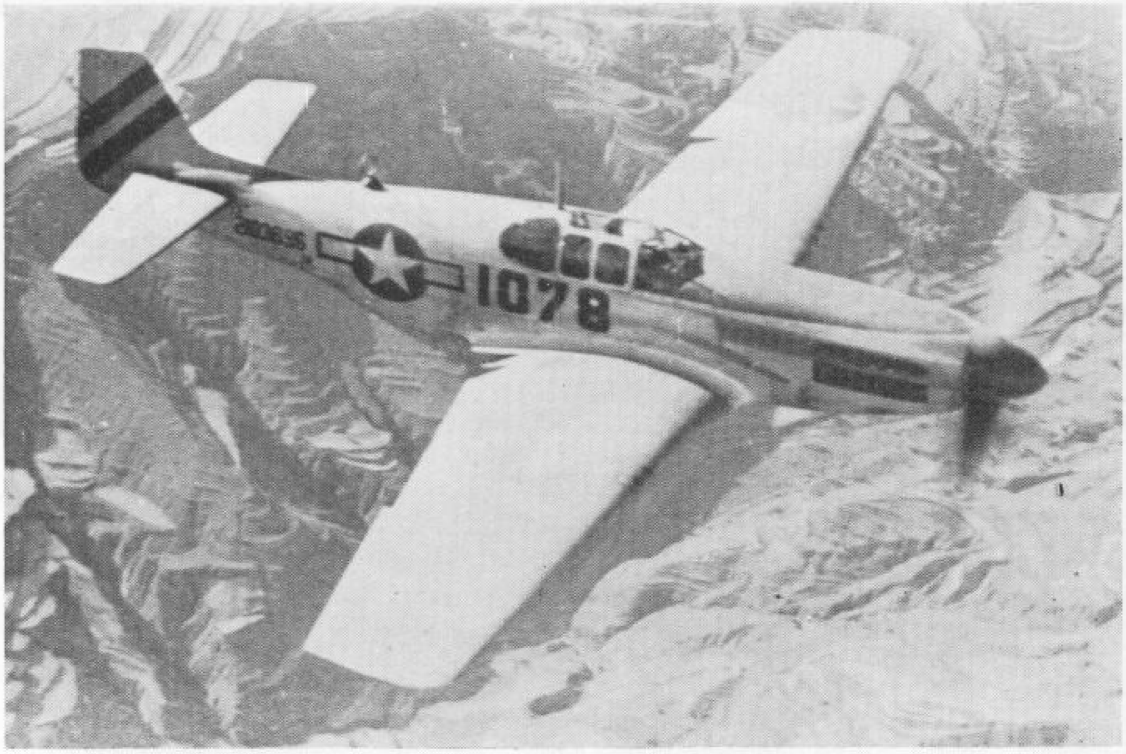


Interesting view of 43-12478, a P-51B-1NA of the 368th Sqdn., 359th Ftr. Grp. This "War Weary" machine (note WW flash on tail) was converted to trainer configuration by the removal of the radio gear and the fitting of a second cockpit. The standard and Malcolm hoods on the same machine provide an interesting contrast.
(Photo: George Letzer)

The tide of the war was well reflected by the markings of the airplanes. The dark days of 1942-43 saw a majority of the combat machines marked as described above but as the tide turned in 1944, so the markings brightened. 5M-H pictured on page 8 is graphic evidence of this. This P-51B is also of Major McWherters 363rd Group but the date is July 1944 and the place is France. Gone is the Olive Drab paint and the natural aluminium skin shines for all the world to know that air superiority was in the hands of the Allies. From this point on the markings become brighter and personal insignia larger and more gaudy. The black and white invasion stripes, added for the D-Day epic, were especially noticable on the deep aft fuselage of the B's and C's. However, a flurry of activity by the *Luftwaffe* in August 1944 resulted in the painting out of all invasion stripes on top of wing and fuselage, which might make the parked aircraft more obvious from the air. A variety of colours was used to accomplish this. It may be noted that 5M-H had the job done in silver while most of the other groups accomplished the feat with Olive Drab. There was one group, however, which chose to be unique and use bright blue paint. That was the 361st Group of the 8th Air Force. An example is "Bald Eagle" illustrated on page 11. This particular airplane is even more colourful than its brethren since it sports yellow and blue strips of the group scouting force on many surfaces. It's as though we were taunting the Germans into coming forth into *our* sky. Late in 1944 and early in 1945, it seemed that each group was trying to outdo the other in wild paint schemes. The 8th Air Force represented the maximum of this extreme. The 9th used very little colouring and neither did the 12th and 15th Air Forces. The China and Burma based P-51B's and

Another aircraft of Maj. McWherter's squadron, with Malcolm hood in closed position. Just visible above wing and stabilizer surfaces are the white identification bands.
(Photo: R. C. McWherter)





A P-51C-10NT (42-103896) of the 311th Ftr. Grp., 10th Air Force over the folded mountains of China in July 1945.
(Photo: A. G. Simmons)

THE F6C PHOTO MUSTANG

The only major variant of the P-51B/C was the photographic version. Some 71 of the P-51B's and 20 of the P-51C's were converted to F6C versions by the addition of one K-17 and one K-22 camera or two K-24 cameras. In addition to assignments with Fighter Groups such as the 355th, the F6C variants served with the 8th Recco. Group in the C.B.I. and with the 10th and 69th Recco. Groups of the 9th Air Force.

C's were either olive or natural aluminium with seldom any markings visible. An occasional tailstripe or fuselage number was evident.

R.A.F. MUSTANG III SERIAL NUMBERS

P-51B		
FX848–999	FZ100–147	FZ149–197
FB100–124	FR4111	
P-51C		
FB125–399	HB821–961	KH421–640

P-51-BNA MANUFACTURED BY NORTH AMERICAN AVIATION IN INGLEWOOD, CALIFORNIA

U.S.A.A.F. Designation	N.A.A. Designation	U.S.A.A.F. Serial Numbers
XP-51B-NA	*******	41-37352 and 41-37421
P-51B-1NA	NA-102	43-12093 to 43-12492
P-51B-5NA	NA-104	43-6313 to 43-7112
P-51B-10NA	NA-104	42-106429 to 42-106538
P-51B-10NA	NA-104	42-106541 to 42-106738
P-51B-10NA	NA-104	43-7113 to 43-7202
P-51B-15NA	NA-106	42-106739 to 42-106978
P-51B-15NA	NA-106	43-24752 to 43-24901

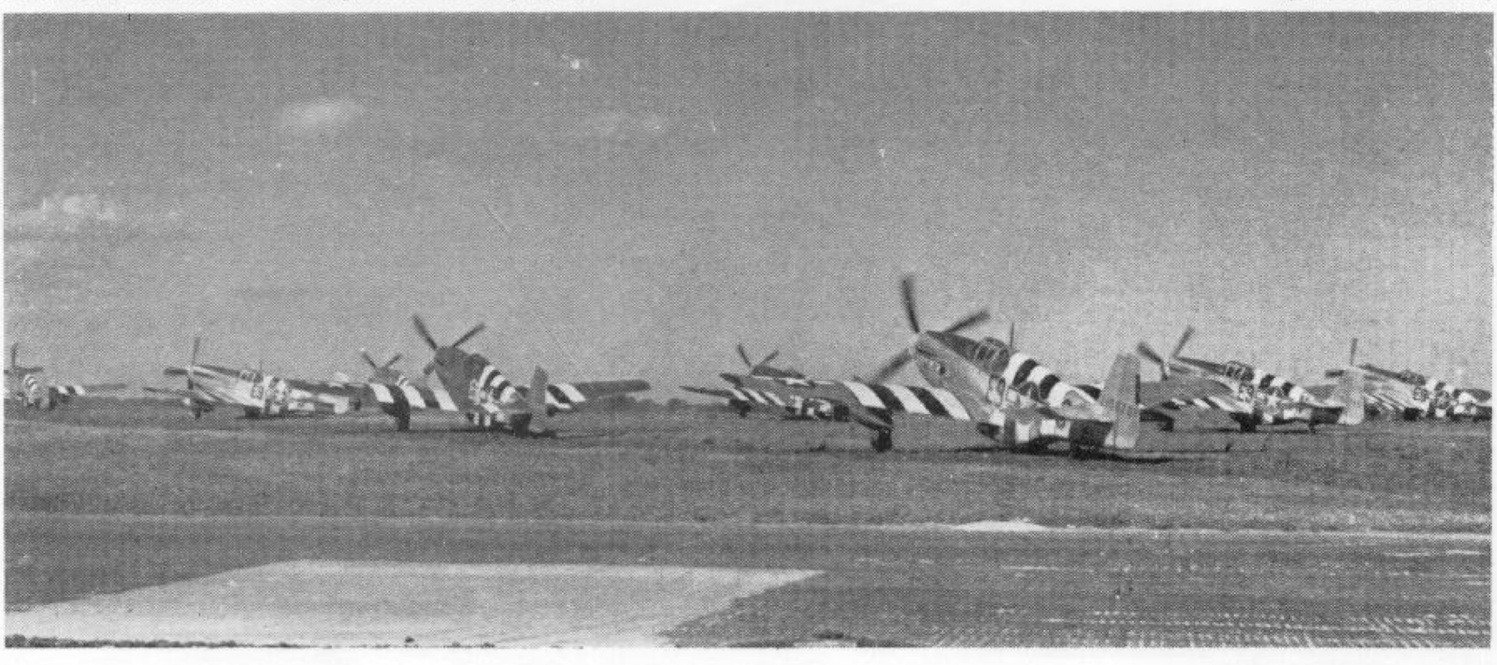
THE MUSTANG DESCRIBED

The construction of the P-51B/C was typical of all Mustangs in basic structure of fuselage, wing, and tail. The canopy was of the same side folding type generated on the XP-51 and carried through on all models

P-51CN-T MANUFACTURED BY NORTH AMERICAN AVIATION IN DALLAS, TEXAS

P-51C-1NT	NA-103	42-102979 to 42-103328
P-51C-5NT	NA-103	42-103329 to 42-103778
P-51C-10NT	NA-105	42-103779 to 42-103978
P-51C-10NT	NA-105	42-24902 to 42-24251
P-51C-10NT	NA-105	44-10753 to 44-10782
P-51C-10NT	NA-105	44-10818 to 44-10852
P-51C-10NT	NA-105	44-10859 to 44-11036
P-51C-10NT	NA-105	44-11123 to 44-11152
P-51C-11NT	NA-107	44-10783 to 44-10817
P-51C-11NT	NA-107	44-10853 to 44-10858
P-51C-11NT	NA-107	44-11036 to 44-11122

Fine study of 376th Ftr. Sqdn. Mustangs queueing for take-off on an English airfield before a bomber escort mission. Note that both Olive Drab and natural metal finishes are displayed.
(Photo: U.S.A.F.)

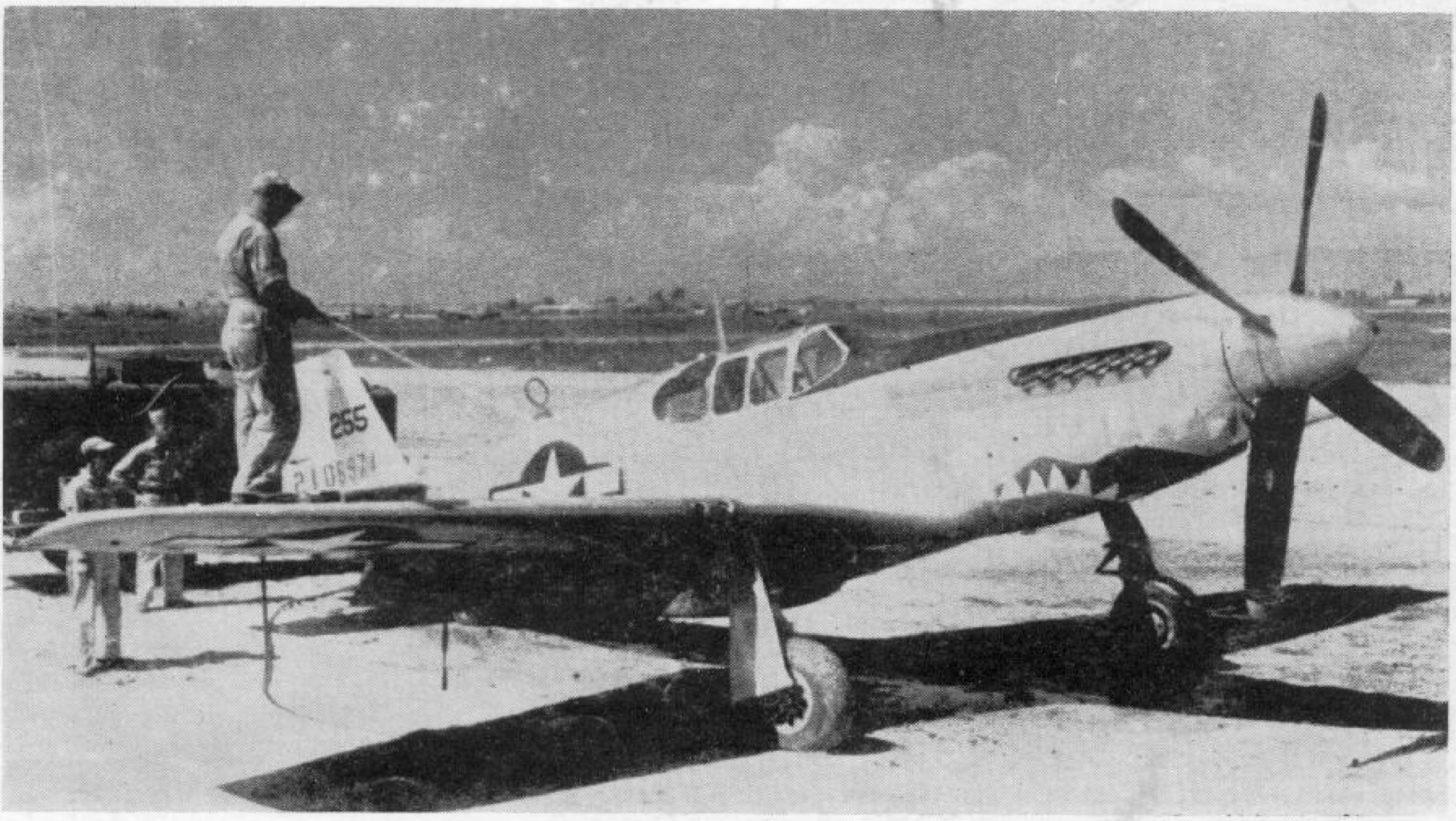


Chinese coolies labour to improve a 10th Air Force field in 1944. (Photo: A. G. Simmons)

until replaced by the bubble of the D model. If there was a single weakness in the B and C, it was the canopy design. Not only was visibility restricted but considerable discomfort was built in due to the low profile line which N.A.A. engineers felt was necessary to reduce drag and attain a high degree of performance. The pilots, even the small ones, were forced to fly with their head pressed against the top of the canopy glass so that adequate vision was available for takeoff, landing, and aerial combat. In all fairness it must be said that not a great deal was known in those days about the proper design of cockpits on the basis of pilot anthropometry. Some relief to this situation was afforded by the local installation of a semi-bubble canopy developed by Malcolm. The Malcolm Hood became a popular modification to Mustangs of the 8th and 9th A.F's. This basic deficiency was eventually to result in the demise of the B and C in favour of its bubble canopied younger brother, the P-51D.

The P-51B-1, -5 and -10 airplanes were powered by the Rolls Royce Merlin V-1650-3 engine with the -15 blocks receiving the -7 engine. The P-51C-1 airplanes also used the V-1650-3 engine with the later model -5, -10 and -11 blocks equipped with the -7 engine. Top speed at 25,000 feet was quoted at 439 m.p.h. Armament consisted of four ·50 calibre machine guns with approximately 1,300 rounds of ammunition. The 2 underwing bomb racks were equipped for 500 pound bombs or drop tanks of 75 to 150 gallons each. Range was in excess of 1,300 miles.

August 1944; a shark-mouthed P-51B-15NA of the 51st Ftr. Grp. in China. (Photo: A. G. Simmons)



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Printed in England by Chichester Press Ltd
R November 1971